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Voltammetric Determination of Acyclovir in Drugs Using an Electrode Modified by Ruthenium Hexachloroplatinate or Hexacyanocobaltate Film

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Abstract

© 2015, Springer Science+Business Media New York. A voltammetric method for determining acyclovir using a chemically modified electrode with catalytic properties was developed. The catalytic properties for acyclovir oxidation of glassy-carbon electrodes modified by inorganic films of Ru(III) hexachloroplatinate or hexacyanocobaltate were compared. The catalytic effect was manifested as a decreased potential and multiply increased oxidation current at the proposed film electrodes. The greatest catalytic effect was observed using an electrode with a film of Ru(III) hexachloroplatinate. The catalytic current depended linearly on the analyte concentration in the range from 0.5 μM to 5 mM. The proposed method was used to determine acyclovir in drugs.

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Keywords

acyclovir, inorganic films, modified electrode, ruthenium hexachloroplatinate and hexacyanocobaltate, voltammetric determination